Stat 280
Spring 2022
Syllabus

1. Instructor: E. Neely Atkinson

   - office: Maxfield Hall 223
   - office hours: by appointment.
   - email: enatk@rice.edu

2. Course components.

   - Text. The text is *OpenIntro Statistics, 4th Edition.* An electronic version is available free of charge at `openintro.org`. An inexpensive paperback edition is also available. The website also includes labs and videos which we will be using.
   - Lectures videos. Lectures are asynchronous. They will be prerecorded and may be viewed (and reviewed) as you wish. Please read the appropriate material from the text before watching the lectures. In lectures, I will expand on material from the text and cover material not included in the text.
   - Class. Class is MWF, 1:00 - 1:50 PM. Initially, class will be held over Zoom. When in person classes resume. we will meet, in Maxfield 251. Please read the appropriate text sections and view the lecture videos before attending class. Since you will have already covered the material in the text and the videos, we will use class for the following;
     (a) Responding to any questions about the material.
     (b) Giving assistance with homework.
     (c) Working additional problems.
     (d) Clarifying concepts from the text and videos and introducing new material of interest.
   - Labs. Labs will be used to make sure you have the skills to work problems for homework and exams. Labbies will assist you with your homework and demonstrate how to use software to work problems. They will also answer questions about lecture material. The labs will use material from the OpenIntro website. Labs are Sunday and Tuesday 6:30-7:50 PM. Initially, labs will

be held over Zoom. When in person classes resume, they will be in Sym II Lab. Although you signed up for a particular lab when you registered for the class, you may attend either of both of the labs. Labs start the second week of class.

- Office hours. Hours are by appointment,
- Homework assignments. There will be homework assignments for each chapter. The assignments will be posted in Canvas. Homework should be submitted electronically as a single file. The file may be in either Word, pdf or html format. The purpose of homework is to learn and practice the material covered in lectures and the text. You may use whatever resources you find helpful to work the assignments, including other students and the Web. However, you must turn in your own work. Submissions which are copies of another student's work will be considered a violation of the Honor Code.

  Your lowest homework score will be dropped. Suppose there were only 3 assignments and they have have possible scores 1, 5, 10. Suppose your scores are 0, 3, and 8. Convert these to 0/1, 3/5, and 8/10 or 0, 0.6, 0.8. The first assignment would be dropped and your average homework score would be $(0.6 + 0/8)/2 = 0.7$. Thus all homeworks have equal weight in the final score.

  Show your work for homework. Do not just give the answer. If you use R to work the problem, show both your R commands and the output from R.

  Late homework will not be accepted.
- Quizzes. There will be a quiz at the end of each Chapter. Quizzes will be taken online in Canvas.
- Final Project. Instead of a final exam, there will be a project. You will define a question of interest to you, design a study to answer the question, collect data, analyze the data, and present the results. You may work alone or in groups. During the last two weeks of class, you may choose to present your project to the class; if you so choose, you will receive extra points on the project. Projects are due the last day of class.

3. The following files are available in Canvas..

   (a) `syllabus.280.pdf` - the syllabus for the course, i.e. this very file.

(b) `stat280.schedule.xlsx` - a week by week schedule for the class, showing what material is being covered in videos, class, and labs and showing when homework and quizzes are due.

(c) `stat280.project.pdf` - a file describing the requirements for the final project and outlining how it will be graded.

4. I recommend the following sequence for each chapter.

   (a) Read the text.

   (b) Watch the lecture videos.

   (c) Attend class and labs.

   (d) Do the homework.

   (e) Take the quiz.

5. Canvas. We will make extensive use of Canvas. All class material will be posted there. All homework will be submitted through Canvas. I will make important announcements using Canvas.

6. Grading. Your final grade will be based on homework (1/3), quizzes (1/3), and the final project (1/3).

   I guarantee the following scale; thus, if you get an 84, your are guaranteed a B. I reserve the right to adjust the scale downward if I feel that a revised scale would better reflect my evaluation of the class achievement. Suppose your final score for the class is s.

$98 \leq s \leq 100$	A+
$93 \leq s < 98$	A
$90 \leq s < 93$	A-
$87 \leq s < 90$	B+
$83 \leq s < 87$	B
$80 \leq s < 83$	B-
$77 \leq s < 80$	C+
$73 \leq s < 77$	C
$70 \leq s < 73$	C-
$67 \leq s < 70$	D+
$63 \leq s < 67$	D
$60 \leq s < 63$	D-
$s < 60$	F

7. Software. We will use the R programming language for this class. This software will be covered in labs, lectures, and class. No previous experience with programming in general or R in particular is required or expected.

8. Getting help. You are encouraged to ask questions in office hours, during class, and during labs. I will also respond to emails.

9. If you have a disability that requires accommodation, please contact both me and Disability Support Services. Possible accommodations include, but are not limited to, extra time for tests, special settings for tests, the services of a note taker, and permission to record lectures. Your request is confidential.

10. If you disagree with (or even have a question about) the grading of homework or an exam, you have one week from the time the work is returned to bring me your question. If I do not hear from you in one week, the grade is final.

Purposes of class. This course is meant to give you a solid grounding in the basic principles of statistical analysis. At the end of this course:

- You will understand the basic principles which underlie all statistical analyses.
- You be be able to perform a range of basic statistical analyses.
- You will be able to understand the ideas behind more advanced analyses, even if you do not completely understand all the details of the analyses or are not able to perform them yourself.
- You will be able to consult effectively with an expert statistician if the need arises in your work for the use of advanced techniques.